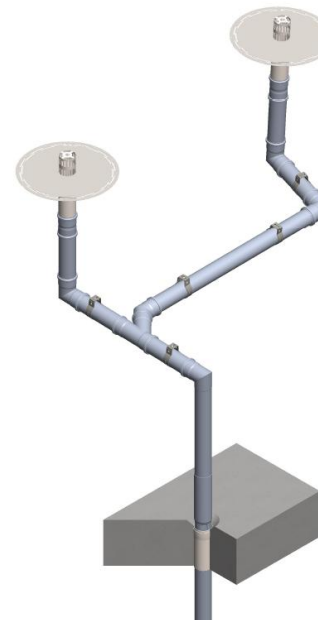




ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Aluminum balcony drainage system and launchable ladders
Vesivek Tuotteet Oy



EPD HUB, HUB-5203

Published on 30.01.2026, last updated on 30.01.2026, valid until 29.01.2031

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.2 (24 Mar 2025) and JRC characterization factors EF 3.1.



Created with One Click LCA



GENERAL INFORMATION

MANUFACTURER

Manufacturer	Vesivek Tuotteet Oy
Address	Teollisuustie 8,16300 Orimattila, FI
Contact details	jukka.viljamaa@vesivek.fi
Website	www.vesivek.fi

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804:2012+A2:2019/AC:2021 and ISO 14025
PCR	EPD Hub Core PCR Version 1.2, 24 Mar 2025
Sector	Construction product
Category of EPD	Third party verified EPD
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Jukka Viljamaa Vesivek Tuotteet Oy
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☒ External verification
EPD verifier	Vera Durão, as an authorised verifier acting for EPD Hub Limited

PRODUCT

Product name	Aluminum balcony drainage system and launchable ladders
Additional labels	Kick proof downpipes
Product reference	-
Place(s) of raw material origin	Finland
Place of production	Orimattila,Finland
Place(s) of installation and use	EU
Period for data	1.2.2024-31.1.2025
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3 (%)	1,3
GTIN (Global Trade Item Number)	-
NOBB (Norwegian Building Product Database)	-
A1-A3 Specific data (%)	88,7

This EPD is intended for business-to-business and/or business-to-consumer communication. The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg
Declared unit mass	1 kg
Mass of packaging	0,07 kg
GWP-fossil, A1-A3 (kgCO ₂ e)	2,16
GWP-total, A1-A3 (kgCO ₂ e)	2,08
Secondary material, inputs (%)	107
Secondary material, outputs (%)	92,3
Total energy use, A1-A3 (kWh)	15
Net freshwater use, A1-A3 (m ³)	0,04



PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Vesivek Tuotteet is Finland's leading manufacturer of rainwater systems and roof safety products.

Vesivek Tuotteet is part of the Vesivek Group. The product range of Vesivek Tuotteet includes solutions for the needs of residential, commercial, and industrial construction. The product categories of Vesivek Tuotteet include rainwater systems, roof safety products, balcony rainwater systems, solar panel mounting brackets, and industrial penetrations. More detailed information about the company and its products can be found on the company's website: www.vesivek.fi

PRODUCT DESCRIPTION

This EPD include Vesivek's aluminum balcony drainage systems, kick-resistant downpipes, and deployable ladders. All products are manufactured from extruded aluminum profiles. The balcony drainage systems and kick-resistant downpipes are produced by forming or welding, whereas the deployable ladders are assembled from components of various lengths.

The Vesivek aluminum balcony drainage system is designed for managing rain and condensate water on apartment building balconies in both new construction and renovation projects. The system consists of powder-coated aluminum pipes (Ø50, Ø73, Ø75 and Ø98 mm), available in RR and RAL color ranges. The pipes lock directly into the drains, allowing installation without separate brackets in straight runs. An adjustable mounting system is available when needed, enabling 15–200 mm spacing from the wall. Sealed EPDM joints ensure tight, sealant-free horizontal connections. The system meets EI60–EI90 fire resistance classifications and is certified (EUF29-23004602-C).

It is also suitable for wooden structures and HVAC condensate drainage. With a service life exceeding 50 years, mechanical durability, and optional accessories such as inspection hatches and condensate outlets, the system offers a reliable and low-maintenance solution for demanding applications.

Vesivek's launchable ladders are made from powder-coated aluminum profiles, ensuring lightness and corrosion resistance, with mounting components made of stainless steel to withstand outdoor conditions and meet rescue industry standards. Standard colors include RR20 white and RR23 dark grey, with custom colors also available. The ladders are delivered in a casing-like form that opens by pulling a release pin from the top, causing the ladder to unfold downward and preventing unauthorized climbing from below. Ladder frames are available in lengths from 2.7 m to 4.2 m and can be extended.

Further information can be found at:
www.vesivek.fi

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	97	Finland
Minerals	-	-
Fossil materials	3	Finland
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0,374

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg
Mass per declared unit	1 kg
Functional unit	-
Reference service life	-

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

PRODUCT LIFE-CYCLE

SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries		
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D		
x	x	x	x	x	ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction/ demolition	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Not declared = ND.

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

Vesivek's balcony drainage system is manufactured from powder-coated aluminum, ensuring corrosion resistance and long service life. The surface treatment uses polyester powder paint, tested for flame spread by VTT. Pipe diameters range Ø50 mm, Ø73 mm, Ø75 mm, Ø98 mm, with custom sizes available for specific projects. The production process emphasizes fire safety, with systems certified up to EI90 class. The design supports smooth water flow to prevent freezing, and heating cables can be added when needed. Color options include RR and RAL shades to match building aesthetics.

A1: Raw materials come from specific factories and mostly from direct transport by truck. Transport distances are ca 100 km for each raw material.

A3: All products are manufactured using extruded aluminium profiles. Production processes for drainage systems and kick-proof pipes include cutting, moulding, and welding. Launchable ladders are cut and assembled before finishing. After assembly, all products go through the painting line, where they receive a durable powder-coated finish. Average production losses are approximately 5%.

A3 Energy: A market-based approach is used in modelling the electricity mix utilized in the factory. Factory uses Nuclear power produced energy and liquefied petroleum gas for heating.

A3 waste scenario: Metals and Cardboard are recycled; Plastic and other solid waste are incinerated to energy. Hazardous wastes are incinerated to energy. Transport distance is assumed to be 67 km to waste sorting. The use of green energy in manufacturing is demonstrated through contractual instruments (GOs, RECs, etc.), and its use is ensured throughout the validity period of this EPD.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

Finished products are mainly transported by truck and, if necessary, by ferry. Transport to buildings (A4) has been calculated using a weighted average. Transport distance is calculated to Germany and can apply to whole Eu. The installation (A5) of balcony drainage systems is designed to be quick and straightforward. Pipes lock directly into the drains, eliminating the need for separate wall brackets between vertically aligned units. Adjustable brackets are used when necessary to position the pipe 15–200 mm from the wall. Installation is carried out using hand tools and battery-powered tools. The systems meet fire safety requirements up to EI90 class and are certified accordingly. They are suitable for both new construction and renovation projects.

Waste scenarios of packaging material are based on Eurostat data. Plastic 40% is recycled, 37% is incinerated and 23% is landfilled. Cardboard 83% is recycled 8% is recycled and 9% is landfilled. Wooden pallets: 32% is recycled 30% is incinerated and 38% is landfilled. Transport distance to landfill is 50 km, to incineration 150 km and to recycling 250 km

PRODUCT USE AND MAINTENANCE (B1-B7)

The use phase (B) has been excluded from this EPD because Vesivek balcony drainage system products require minimal maintenance during their lifecycle. No emissions to air, water, or soil have been observed during the use phase in this case. Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

C1: Decommissioning is mainly done by hand tools or battery powered machines

C2: It is estimated that the products are transported to a waste treatment facility to sorting to different materials. The assumed transport distance is 50 km by EURO 5 emission truck.

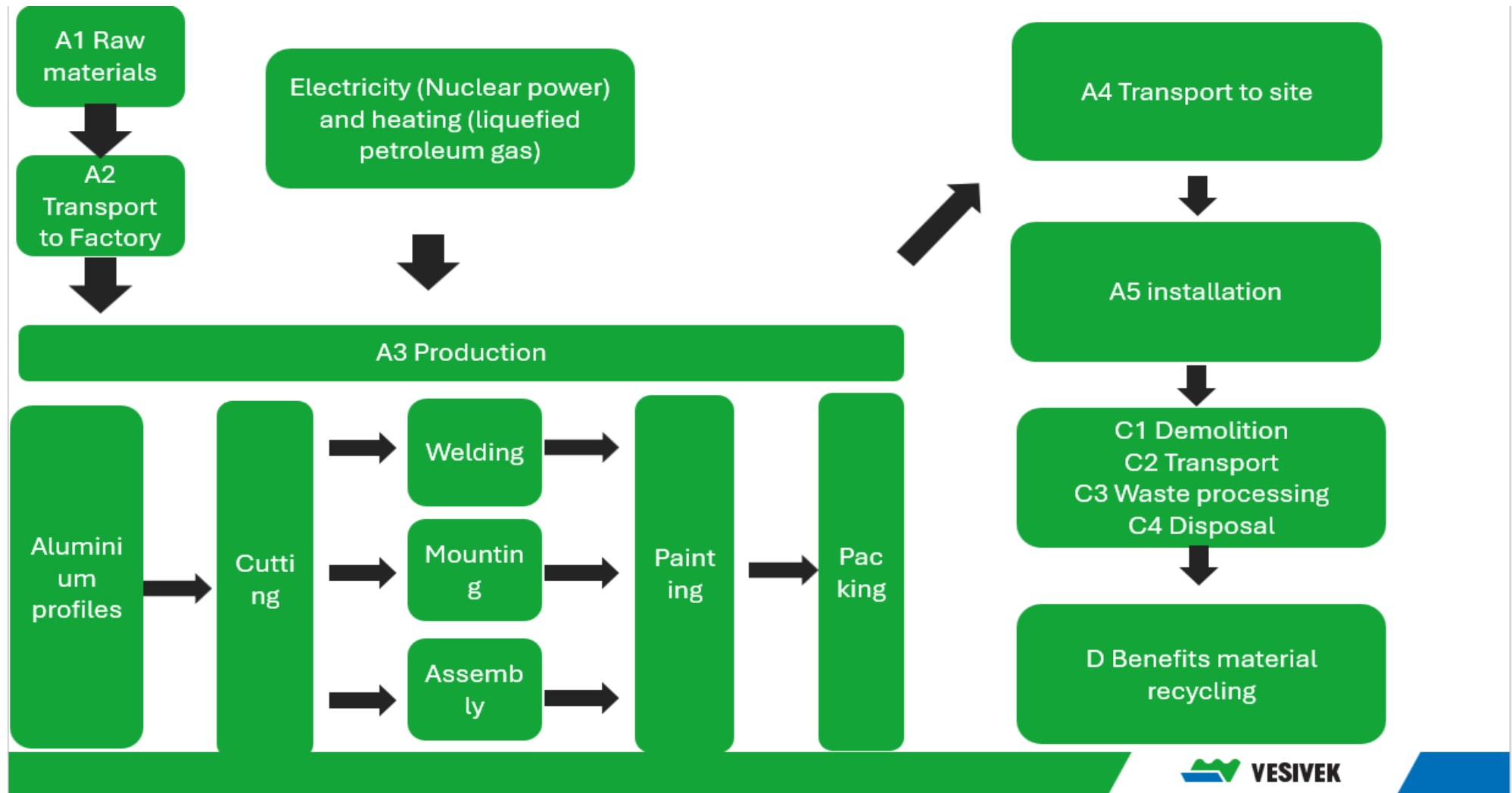
C3-C4. The materials of balcony drainage system products are mostly recyclable. In this scenario:

- Steel construction: 85% is recycled and 15% is landfilled
- Stainless steel: 95% is recycled and 5% is landfilled
- Aluminium 90% is recycled and 10% is landfilled

D: Benefits was modelled by selecting predefined datasets with generic EU scenarios for each material type. Aluminium and steel are not included because in this scenario because secondary materials are used.

The scenarios were modelled based on Eurostat year 2024, which represent average scenarios on Europe.

MANUFACTURING PROCESS



LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

The production of capital equipment, construction activities, and infrastructure, maintenance and operation of capital equipment, personnel-related activities, energy and water use related to company management and sales activities are excluded.

VALIDATION OF DATA

Data collection for production, transport, and packaging was conducted using time and site-specific information, as defined in the general information section on page 1 and 2. Upstream process calculations rely on generic data as defined in the Bibliography section. Manufacturer-provided specific and generic data were used for the product's manufacturing stage. The analysis was performed in One Click LCA EPD Generator, with the 'Cut-Off, EN 15804+A2' allocation method, and characterization factors according to EN 15804:2012+A2:2019/AC:2021 and JRC EF 3.1.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocation
Raw materials	Partly allocated by mass or volume
Packaging material	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	Multiple products
Grouping method	Based on average results of product group - by total mass
Variation in GWP-fossil for A1-A3, %	1,3%

This EPD covers the aluminium balcony tube system, kick-resistant downpipes, and deployable ladders. All product groups are manufactured from the same raw materials and using comparable manufacturing methods. The calculation combines the total product volume and raw material consumption from 1 February 2024 to 31 January 2025. The summary follows EPD Hub PCR v1.2 and is based on average calculation.

Below is a closer look at how the GWP fossil values of each system differ:

- GWP fossil A1-A3 Aluminium balcony tube: 2.17 kgCO₂e
- GWP fossil A1-A3 Kick-resistant downpipe: 2.13 kgCO₂e
- GWP fossil A1-A3 Launchable ladder: 2.18 kgCO₂e

The differences are therefore within 1.3%-0.9% of the average, so it can be stated that these products meet the requirements in terms of averaging.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator for EPD Hub V3 and EPD Process Certification v3.2.3. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10.1/3.11 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1/3.11 environmental data sources follow the methodology 'allocation, Cut-off, EN 15804+A2'.

Specific EPD's which suppliers send to us are used and those are third party verified and compliant with EN15804+A2 requirements.

In other stages there is used generic data sets.

EOL scenarios are based on Eurostat.

ENVIRONMENTAL IMPACT DATA

The estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks.

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total ¹⁾	kg CO ₂ e	2,09E+00	2,58E-02	-3,98E-02	2,08E+00	1,49E-01	2,09E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,69E-02	2,48E-02	8,24E-02	-1,71E-02
GWP – fossil	kg CO ₂ e	2,07E+00	2,58E-02	5,99E-02	2,16E+00	1,49E-01	1,07E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,69E-02	2,49E-02	8,24E-02	-1,71E-02
GWP – biogenic	kg CO ₂ e	8,23E-03	5,43E-06	-1,00E-01	-9,18E-02	2,34E-05	1,02E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,07E-06	-7,35E-05	-2,23E-05	0,00E+00
GWP – LULUC	kg CO ₂ e	1,55E-02	1,19E-05	3,23E-04	1,59E-02	7,19E-05	6,42E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,20E-05	2,93E-05	1,68E-05	-1,65E-05
Ozone depletion pot.	kg CFC ₁₁ e	6,15E-08	3,79E-10	1,54E-09	6,34E-08	2,16E-09	2,68E-09	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,95E-10	2,70E-10	1,00E-09	-1,15E-10
Acidification potential	mol H ⁺ e	9,05E-03	1,94E-04	2,63E-04	9,51E-03	3,83E-03	5,64E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,14E-05	2,67E-04	1,33E-04	-9,57E-05
EP-freshwater ²⁾	kg Pe	1,53E-04	1,82E-06	1,58E-03	1,73E-03	5,39E-06	2,63E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,09E-06	1,36E-05	6,26E-06	-5,12E-06
EP-marine	kg Ne	1,33E-03	5,42E-05	9,39E-05	1,47E-03	9,73E-04	1,17E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,00E-05	5,94E-05	2,94E-05	-1,72E-05
EP-terrestrial	mol Ne	1,50E-02	5,97E-04	7,39E-04	1,64E-02	1,08E-02	1,19E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,26E-04	6,70E-04	3,06E-04	-1,83E-04
POCP (“smog”) ³⁾	kg NMVOCe	5,90E-03	1,99E-04	3,46E-04	6,45E-03	2,95E-03	4,09E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,34E-04	1,97E-04	1,50E-04	-5,86E-05
ADP-minerals & metals ⁴⁾	kg Sbe	7,25E-06	6,46E-08	3,82E-07	7,70E-06	1,75E-07	3,57E-07	ND	ND	ND	ND	ND	ND	ND	0,00E+00	7,60E-08	1,48E-06	2,19E-07	-4,47E-07
ADP-fossil resources	MJ	3,62E+01	3,65E-01	1,03E+01	4,69E+01	1,88E+00	2,05E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,89E-01	2,95E-01	6,40E-01	-1,84E-01
Water use ⁵⁾	m ³ e depr.	5,28E-01	1,70E-03	9,37E-02	6,23E-01	5,62E-03	2,64E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,91E-03	4,70E-03	5,45E-03	-4,92E-03

1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO₄e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential; 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	1,56E-07	2,30E-09	4,81E-09	1,63E-07	5,94E-09	7,16E-09	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,64E-09	3,73E-09	1,52E-09	-1,37E-09
Ionizing radiation ⁶⁾	kBq 11235e	2,68E-01	2,97E-04	5,56E-01	8,25E-01	9,15E-04	3,32E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,37E-04	1,12E-03	1,56E-03	-7,11E-04
Ecotoxicity (freshwater)	CTUe	1,41E+01	4,83E-02	1,63E+00	1,57E+01	1,56E-01	6,57E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,55E-02	1,71E-01	1,80E+01	-4,85E-02
Human toxicity, cancer	CTUh	3,64E-09	4,45E-12	1,41E-10	3,79E-09	2,98E-11	1,95E-10	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,44E-12	2,00E-11	4,03E-11	-1,55E-11
Human tox. non-cancer	CTUh	3,21E-08	2,16E-10	6,38E-10	3,29E-08	5,80E-10	1,49E-09	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,51E-10	1,28E-09	6,55E-10	-3,42E-10
SQP ⁷⁾	-	6,62E+00	3,21E-01	8,80E+00	1,57E+01	4,49E-01	7,16E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,79E-01	5,60E-01	1,66E-01	-8,70E-02

6) EN 15804+A2 disclaimer for Ionizing radiation, human health. This impact category deals mainly with the eventual impact of low-dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator; 7) SQP = Land use related impacts/soil quality.

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy ⁸⁾	MJ	5,67E+00	4,70E-03	6,18E-01	6,30E+00	1,52E-02	-7,24E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,33E-03	4,63E-02	1,86E-02	-4,42E-02
Renew. PER as material	MJ	0,00E+00	0,00E+00	1,01E+00	1,01E+00	0,00E+00	-1,01E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of renew. PER	MJ	5,67E+00	4,70E-03	1,63E+00	7,31E+00	1,52E-02	-1,73E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,33E-03	4,63E-02	1,86E-02	-4,42E-02
Non-re. PER as energy	MJ	3,72E+01	3,65E-01	1,00E+01	4,76E+01	1,88E+00	1,84E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,89E-01	2,95E-01	3,88E-01	-1,84E-01
Non-re. PER as material	MJ	0,00E+00	0,00E+00	3,18E-01	3,18E-01	0,00E+00	-3,18E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of non-re. PER	MJ	3,72E+01	3,65E-01	1,04E+01	4,79E+01	1,88E+00	1,52E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,89E-01	2,95E-01	3,88E-01	-1,84E-01
Secondary materials	kg	1,07E+00	1,58E-04	8,53E-03	1,08E+00	8,16E-04	4,31E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,66E-04	3,43E-04	9,35E-04	2,01E-03
Renew. secondary fuels	MJ	7,46E-05	1,76E-06	3,36E-02	3,37E-02	3,27E-06	1,35E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,11E-06	1,56E-05	1,37E-06	-4,74E-06
Non-ren. secondary fuels	MJ	3,45E-06	0,00E+00	0,00E+00	3,45E-06	0,00E+00	1,38E-07	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m ³	4,08E-02	5,00E-05	2,25E-03	4,31E-02	1,47E-04	1,65E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,70E-05	1,30E-04	-2,33E-04	-1,50E-04

8) PER = Primary energy resources.

END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	6,91E-02	6,00E-04	5,62E-03	7,53E-02	2,44E-03	3,67E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,60E-04	2,29E-03	4,48E-02	-1,68E-02
Non-hazardous waste	kg	1,49E+00	1,08E-02	2,64E-01	1,77E+00	3,56E-02	2,26E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,22E-02	6,50E-02	5,63E-01	-3,46E-02
Radioactive waste	kg	2,42E-04	7,27E-08	1,34E-04	3,77E-04	2,23E-07	1,53E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,24E-08	2,78E-07	4,08E-07	-1,75E-07

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	1,25E+00	0,00E+00	0,00E+00	1,25E+00	0,00E+00	7,54E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	9,23E-01	0,00E+00	0,00E+00
Materials for energy rec	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,39E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy – Electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,84E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy – Heat	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,06E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

ADDITIONAL INDICATOR – GWP-GHG

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG ⁹⁾	kg CO ₂ e	2,09E+00	2,58E-02	6,03E-02	2,17E+00	1,49E-01	1,07E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,69E-02	2,49E-02	8,24E-02	-1,71E-02

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. In addition, the characterisation factors for the flows – CH₄ fossil, CH₄ biogenic and Dinitrogen monoxide – were updated. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterisation factor for biogenic CO₂ is set to zero.

SCENARIO DOCUMENTATION

DATA SOURCES

Manufacturing energy scenario documentation

1. Electricity production, nuclear, boiling water reactor, Finland, Ecoinvent, 0.0077 kgCO₂e/kWh
2. Electricity production, nuclear, boiling water reactor, Finland, Ecoinvent, 0.0077 kgCO₂e/kWh
3. Liquefied petroleum gas, World, One Click LCA
4. Liquefied petroleum gas, World, One Click LCA
5. Liquefied petroleum gas, World, One Click LCA

Transport scenario documentation - A4 (Transport resources)

1. Market for transport, freight, lorry >32 metric ton, EURO5, 200 km
2. Market for transport, freight, sea, ferry, 1000 km

Transport scenario documentation A4

Scenario parameter	Value
Capacity utilization (including empty return) %	100
Bulk density of transported products	0,00E+00
Volume capacity utilization factor	<1

Installation scenario documentation - A5 (Installation waste)

1. Scrap, collection & sorting (Aluminium), Ecoinvent, 0.04 kg
2. Sorting and pressing of iron scrap, Ecoinvent, 0.02 kg
3. Treatment of waste polyethylene, for recycling, unsorted, sorting, Ecoinvent, Materials for recycling, 0.0024 kg

4. Treatment of waste polyethylene, municipal incineration, Ecoinvent, 0.0022 kg
5. Exported Energy: Electricity, Ecoinvent, 0.015 MJ
6. Exported Energy: Electricity, Ecoinvent, 4.3E-4 MJ
7. Exported Energy: Electricity, Ecoinvent, 0.043 MJ
8. Exported Energy: Thermal, Ecoinvent, 0.021 MJ
9. Exported Energy: Thermal, Ecoinvent, 6.2E-4 MJ
10. Exported Energy: Thermal, Ecoinvent, 0.059 MJ
11. Treatment of waste polyethylene, sanitary landfill, Ecoinvent, 0.0014 kg
12. Treatment of waste paperboard, unsorted, sorting, Ecoinvent, Materials for recycling, 0.0022 kg
13. Treatment of waste packaging paper, municipal incineration, Ecoinvent, 2.2E-4 kg
14. Treatment of waste packaging paper, sanitary landfill, Ecoinvent, 2.4E-4 kg
15. Treatment of waste wood, post-consumer, sorting and shredding, Ecoinvent, Materials for recycling, 0.021 kg
16. Treatment of waste wood, untreated, municipal incineration, Ecoinvent, 0.019 kg
17. Treatment of waste wood, untreated, sanitary landfill, Ecoinvent, 0.024 kg
18. Scrap, collection & sorting (Stainless st), Ecoinvent, 0.02 kg

End-of-life scenario documentation - C1-C4 (Data source)

1. Sorting and pressing of iron scrap, Ecoinvent, Materials for recycling, 0.034 kg
2. Sorting and pressing of iron scrap, Ecoinvent, Materials for recycling, 0.0089 kg
3. Treatment of scrap steel, inert material landfill, Ecoinvent, 0.006 kg
4. Treatment of scrap steel, inert material landfill, Ecoinvent, 4.7E-4 kg
5. Sorting and pressing of iron scrap, Ecoinvent, Materials for recycling, 0.88 kg
6. Treatment of waste aluminium, sanitary landfill, Ecoinvent, 0.097 kg
7. Treatment of waste emulsion paint, hazardous waste incineration, Ecoinvent, 0.03075 kg

Scenario information	Value
Scenario assumptions e.g. transportation	Transport to landfill 50 km, to recycling 250 and incineration to energy 150

THIRD-PARTY VERIFICATION STATEMENT

EPD Hub declares that this EPD is verified in accordance with ISO 14025 by an independent, third-party verifier. The project report on the Life Cycle Assessment and the report(s) on features of environmental relevance are filed at EPD Hub. EPD Hub PCR and ECO Platform verification checklist are used.

EPD Hub is not able to identify any unjustified deviations from the PCR and EN 15804+A2 in the Environmental Product Declaration and its project report.

EPD Hub maintains its independence as a third-party body; it was not involved in the execution of the LCA or in the development of the declaration and has no conflicts of interest regarding this verification.

The company-specific data and upstream and downstream data have been examined as regards plausibility and consistency. The publisher is responsible for ensuring the factual integrity and legal compliance of this declaration.

The software used in creation of this LCA and EPD is verified by EPD Hub to conform to the procedural and methodological requirements outlined in ISO 14025:2010, ISO 14040/14044, EN 15804+A2, and EPD Hub Core Product Category Rules and General Program Instructions.

Verified tools

Tool verifier: Magaly Gonzalez Vazquez

Tool verification validity: 27 March 2025 - 26 March 2028

Vera Durão, as an authorised verifier acting for EPD Hub Limited

30.01.2026

Vera Durão



ANNEX 1.

WEIGHT/METER

Product	kg/m	GWP total kg CO2e/m	GWP fossil kg CO2e/m	GWP biogenic kg CO2e/m	GWP LULUC kg CO2e/m
Ø50 Balcony drainage system	0,62	1,29E+00	1,34E+00	-5,69E-02	9,86E-03
Ø73 Balcony drainage system	0,79	1,64E+00	1,71E+00	-7,25E-02	1,26E-02
Ø100 Balcony drainage system	1,63	3,39E+00	3,52E+00	-1,50E-01	2,59E-02
P108 Kick proof pipe	2,5	5,20E+00	5,40E+00	-2,30E-01	3,98E-02
P135 Kick proof pipe	2,9	6,03E+00	6,26E+00	-2,66E-01	4,61E-02
P162 Kick proof pipe	4,13	8,59E+00	8,92E+00	-3,79E-01	6,57E-02
Launchable ladder	2,84	5,91E+00	6,13E+00	-2,61E-01	4,52E-02